

**REMARKS**

Claims 1-4 are pending in this application. By this Amendment, claim 1 is amended to even more clearly distinguish over the applied reference, and claims 5-11 are canceled without prejudice to or disclaimer of the subject matter contained therein. Applicants reserve the right to file a Divisional application to pursue the subject matter of claims 6-11. The title of the invention and the specification are also amended in accordance with the Office Action. Reconsideration in view of the foregoing amendments and following remarks is respectfully requested.

**I. Formal Matters Satisfied**

The Office Action objects to the title of the invention. By this Amendment, Applicants have amended the title to more clearly indicate the subject matter to which the claims are directed. Accordingly, withdrawal of the objection to the title is respectfully requested.

The Office Action objects to the specification due to typographical errors. By this Amendment, Applicants have amended the specification to correct any discovered typographical errors. Accordingly, Applicants respectfully request that the objection to the specification be withdrawn.

**II. Claims Define Patentable Subject Matter**

The Office Action rejects claims 1-5 under 35 U.S.C. §102(e) over U.S. Patent No. 6,292,334 to Koike et al. Applicants respectfully traverse the rejection.

In particular, Applicants submit that Koike et al. fails to suggest or disclose a thin-film magnetic head comprising, *inter alia*, a magnetism intercepting layer for intercepting magnetism provided between one of the shield layers and one of the magnetic layers, the magnetism intercepting layer having a thickness of 0.2  $\mu$ m or greater and made of a nonmagnetic metal material that is capable of being formed through plating, as recited in amended claim 1. Support for this newly claimed feature can be found in the specification at,

e.g., page 18, line 26 – page 19, line 1, and page 20, lines 5-14, in which the experiments illustrated in Figs. 8 and 9 are discussed. In both cases, the thickness of the magnetism intercepting layer 9 was 0.2  $\mu\text{m}$ . The results of the experiments indicate that with this thickness, write induced noise is greatly reduced as compared to other magnetic heads.

Koike et al. teaches a thin-film magnetic head with a nonmagnetic intermediate layer 34 which the Office Action has analogized to the magnetism intercepting layer of claim 1. At col. 12, lines 10-15, Koike et al. states that the nonmagnetic intermediate layer 34 is interposed between the upper magnetic layer 35 and a lower magnetic layer 33, so that the magnetic layers 33 and 35 are magnetized in an antiparallel state by the static magnetic coupling produced at the ends of the upper magnetic layer 35 and the lower magnetic layer 33. At col. 14, lines 29-30, it is stated that the thickness of the nonmagnetic intermediate layer 34 formed in the upper shield layer is preferably 100 to 1000 angstroms or 0.01 to 0.1  $\mu\text{m}$ . At lines 38-46, of the same column, Koike et al. states that where the thickness exceeds 1000 angstroms (0.1  $\mu\text{m}$ ) less static magnetic coupling occurs between the magnetic layers, causing problems in that the condition to put magnetization in each of the magnetic layers into the single magnetic domain state cannot be promoted. Thus, in view of Koike et al., it would have been antithetical to have a magnetism intercepting layer having a thickness of 0.2  $\mu\text{m}$  or greater. Koike et al. teaches away from such a feature. Accordingly, Applicants respectfully submit that claim 1 is patentable over Koike et al. Claims 2-4 also are patentable over Koike et al. for at least the same reasons as claim 1. Claim 5 has been canceled. Accordingly, Applicants respectfully request that the rejection of claims 1-4 under 35 U.S.C. §102(e) be withdrawn.

**III. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:PDM/ccs

Attachment:  
Petition for Extension of Time

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